

Information Services

The Information Services Division, under the direction of Assistant Director Steven Hillesland, includes Systems Manager Daniel Dickson, Design Systems Engineer Jim Ayres, P.E., Support Specialist Jim Oyler, and Database Development Specialist Kathy O'Shea.

The Information Services Division, in 2003, made unique and creative contributions to the design and management efforts of Washington counties. Beyond providing a progressive, stable and secure computing environment for this agency's staff, Information Services develops and provides systems, training and consulting services specific to the needs of county road departments in Washington. These services, being one common solution applied across the State, effectively demonstrate the economy-of-scale for which CRAB has become well known. They enable Washington's county road departments to better complete their missions and serve their citizens. The Information Services efforts are directed at ensuring that our counties effectively apply current and emerging technology to improve and preserve the public's investment in transportation infrastructure.

The primary focus of information services at CRAB is on road engineering design and road management practices. The design systems section provides and supports the road design software *Eagle Point Advantage Series*, which greatly enhances a county's ability to consistently design safe and cost-effective road projects. The management systems section develops, provides and supports integrated database systems, such as the new *Mobility* or the venerable *County Road Information System*, both of which greatly enhance a county's ability to make quality decisions through consistent, equitable, and defensible management plans and processes. Each of these initiatives then depends on and is enhanced by a broad range of consulting services, support and training provided by CRAB to Washington counties at little or no cost.

A secondary but critical focus is on information exchange. CRAB enables citizens, engineers and legislators alike to make more informed decisions about our State's transportation strategies using technology, such as our effective website, to enhance the communication pipeline CRAB has become.

MANAGEMENT SYSTEMS

Mobility was the primary initiative of the Information Services team at CRAB in 2003. *Mobility* is a road inventory and management system, developed by CRAB, which replaces the aging *CRIS* system developed by CRAB in 1987 and used effectively by Washington counties for 16 years. The systematic application of sound business logic embedded in *Mobility* ensures consistency, equity, accountability, and defensibility of the strategic plans and operations developed by county road departments.

The screenshot displays the *Mobility* software interface. On the left, a list of roads is shown with columns for Name, Number, Asc, and Desc. The main window is divided into several panes. The top pane shows a 'Key' section with fields for Road Number (15770), Road Name (101ST AVE SW), From Milepost (12.740), and To Milepost (13.170). Below this is a 'Reference Information' section. The central pane is a table with columns for Classification, Cross Section, Structure, Traffic, Needs Analysis, Districts / Routes, Area, and Misc. The table contains data for various road segments, including '101ST AVE SW - 15770' and '101ST AVE SW - 15775'. The right pane shows a detailed cross-section for a selected road segment, including fields for Thru Lane, Other Lane, Median, Left Bicycle, Right Bicycle, Left Shoulder, Right Shoulder, Right Sidewalk, Left Sidewalk, Left Curb Surface, and Right Curb Surface. The 'Totals' section on the right shows values for Operational Width, Pavement Width, Cross Section Width, and CRIS Width.

Mobility went through a pilot process and beta testing phase in 2003 and will be deployed throughout Washington counties in 2004. The pilot process, which placed *Mobility* in three Washington counties in the summer of 2003, was the culmination of the critically important collaborative strategy of the *Mobility* development. Working directly with the users during development of *Mobility* ensured that it would, and the pilot proved that it does, respond to their needs and fit with their working environment, improving both their decision-making and management practices.

The beta testing process, begun in November, is that final effort to identify any problems with what appears to be a product ready for release. Six counties in Washington, large and small, east and west, technology challenged and technology innovative will thoroughly test *Mobility* in a live environment.

The response by users to both the pilot and the beta testing has been across the board acceptance of and enthusiasm for the deployment of *Mobility*. The collaborative development effort of *Mobility* has ensured that the counties will receive a management system tuned to their specific needs, and will save the counties from having to spend millions on systems that are neither as specific nor as responsive to their needs.

TECHNICAL ASSISTANCE

A hallmark of the success of Information Services is the effectiveness of the training and support offered by CRAB to counties and our timely response to county requests and critical issues. Washington counties are continually facing declining resources and increasing challenges. CRAB is committed to offering support, training and other assistance to help our counties be accountable to the regulations CRAB and others write and enforce. CRAB provides world-class training and support on the products it develops and provides, as well as timely assistance in any other challenge confronting Washington counties. A further success at CRAB is demonstrated by its unique ability to be a conduit for information exchange amongst counties, exhibiting that economy-of-scale in providing single point solutions to common challenges in the counties.

DESIGN SYSTEMS

Design Systems is a program of which CRAB is particularly proud. We have provided engineering road design software, support and training to Washington counties that have greatly improved their design capabilities since 1985. This program has enabled county design personnel to effectively collect, develop and manipulate the geometric information necessary for site design and construction planning, to contain costs, and to improve productivity throughout the life of a road project.

The keys to the success of this program are providing effective software, support, and training and engaging our client design personnel in the process. The effective design



software we currently provide is state-of-the-art in all aspects of the professional civil engineering discipline; our support and training are world class; and we engage the Washington design community in unique and creative ways.

Clallam County used CRAB design software and RAP funding in 2003 to greatly improve the O'Brien Road. O'Brien Road went from a cart path to a hard surface in the 1800's and slowly improved over the years. Yet in 2002 it was still a narrow

roller-coaster with inadequate shoulders and other safety concerns such as site distance, curvature, grades, slopes, and ditches.

A new design produced a much safer driving experience by increasing road width, site distance, and clear zone; improving in-slopes and curve radius; providing adequate super-elevation and vertical profile; and adding guardrails where necessary.